

ABSTRACT

A gas turbine engine (120) includes a cylindrical basket (146) having an axis (14) and a single main burner assembly (12) disposed within the basket. A burner insert (34) is disposed in an annular space between the burner assembly and the basket. The insert includes a face perpendicular to the axis of the basket. A plurality of passageways (114) are formed in the basket, positioned proximate to and downstream of the burner insert for allowing passage of a portion of an oxidizer flow (42) into a combustion chamber (30). A fluid flow path (38), defined between a combustion chamber liner portion (32) of the basket and a casing (40) spaced radially outward from the combustion liner portion, discharges a fluid into a flow reversal region (118) proximate an inlet (20) of the burner assembly. A fuel outlet (44) is disposed in the flow reversal region.